

Application No. 09/061,441
Response dated December 15, 2003
to Office Action of 08/13/2003

In the Claims

This listing of claims will replace all prior versions of the claims of this application:

Listing of Claims

Claims 1 – 17 (cancelled)

Claim 18 (previously presented): In a communications system,
a first antenna, and a first input amplifier for amplifying signals received by said
first antenna;
a second antenna, and a second input amplifier for amplifying signals received by
said second antenna;
an intermediate frequency stage connected to said second input amplifier; and
a selector disposed between said first input amplifier and said intermediate
frequency stage and between said second antenna and said second input amplifier for
selecting operation of the communications system between said first and second
antennas,
wherein said first input amplifier includes a feedback loop for altering the
operational characteristics of said first input amplifier in receiving mode.

Claim 19 (previously presented): In a communications system as claimed in claim 18,
wherein said feedback loop includes a switch for selectively activating said feedback
loop.

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Claim 20 (previously presented): In a communications system as claimed in claim 18, wherein said feedback loop is a closed loop.

Claim 21 (previously presented): In a communications system,
a first antenna, and a first receiving amplifier for amplifying signals received by
said first antenna;
a second antenna, and a second receiving amplifier for amplifying signals
received by said second antenna;
an intermediate frequency stage connected to said second receiving amplifier; and
a selector disposed between said first receiving amplifier and said intermediate
frequency stage and between said second antenna and said second receiving amplifier for
selecting operation of the communications system between said first and second
antennas;
said first and second receiving amplifiers providing plural signal receiving paths
of different signal processing characteristics in a receiver diversity architecture wherein
for a given incoming radio signal, either of the respective signal receiving paths are
respectively selectively operable.

Claim 22 (previously presented): In a communications system as claimed in claim 21,
said first receiving amplifier includes a feedback loop for altering the operational
characteristics of said first receiving amplifier.

Claim 23 (previously presented): In a communications system as claimed in claim 22,
said feedback loop includes a switch for selectively activating said feedback loop, to
selectively change the signal processing characteristics for the incoming radio signal.

Claim 24 (previously presented): In a communications system as claimed in claim 22,
said feedback loop is a closed loop.

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Claims 25 – 30 (cancelled).

Claim 31 (previously presented): In a communications system,
a first antenna and a second antenna
for selective operation in
receiving mode;
an input amplifier having two respective active operating conditions for amplifying
signals received by said first
antenna when selected for
operation in respective first active receiving modes;
an intermediate frequency stage
for selective connection with the
first antenna and the input amplifier in the first active
receiving modes, and for
selective connection to the
second antenna in a second active
receiving mode;
a selector system for selecting
between the first active receiving
modes and the second active
receiving mode;
wherein said input amplifier includes a feedback loop which is selectively closed in one
of the first active receiving modes, and is selectively open in another of the first active
receiving modes, such that the receiving path from the first antenna to the intermediate
frequency stage in the respective first active receiving modes selectively has two
respective different signal processing characteristics for a given incoming radio signal at
the first antenna, the input amplifier in addition to having two active operating conditions

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providing two different signal processing characteristics of said receiving path from the first antenna to the intermediate frequency stage, having a deactivated condition when said selector system selects the second active receiving mode.

Claim 32 (previously presented): In a communications system as claimed in claim 31, the signal receiving path from the first antenna to the intermediate frequency stage in the first receiving mode has a different signal processing characteristic than the signal receiving path from the second antenna to the intermediate frequency stage in the second receiving mode, for the case where the feedback loop is selectively closed, and for the case where the feedback loop is selectively open.

Claims 33-45 (canceled)

Please reinstate claims generally corresponding to cancelled claims 33-45 as new claims 46-58.

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Claim 46 (new) : In a communications system,

(a) a first antenna and a second antenna
for selective operation in
receiving mode;

(b) an intermediate frequency stage
for selective connection with the
first antenna in a first
receiving mode, to
activate a first signal
receiving path, and for
selective connection to the
second antenna in a second
receiving mode, to activate a
second signal receiving
path;

(c) wherein the first and second signal receiving paths are circuit paths, and the
first signal receiving path from the first antenna to the intermediate frequency stage when
activated in the first receiving mode to connect only the first antenna to the intermediate
frequency stage has a different signal processing characteristic than the second signal
receiving path from the second antenna to the intermediate frequency stage when
activated in the second receiving mode to connect only the second antenna to the
intermediate frequency stage; and

(d) wherein the first signal receiving path which is a circuit path extending only
from the first antenna to the intermediate frequency stage when activated in the first
receiving mode has different componential circuit structure which provides a different
signal processing characteristic for processing the received signal than the componential
circuit structure of the second signal receiving path which is a circuit path extending only
from the second antenna to the intermediate frequency stage when activated in the second
receiving mode.

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Claim 47 (new) : In a communications system as claimed in claim 46, the first signal receiving path when activated includes an amplifier which provides a different signal processing characteristic than the second signal receiving path when activated, which lacks a corresponding amplifier.

Claim 48 (new): In a communications system, diversity architecture receiving circuitry having first and second antennas and first and second signal receiving circuit paths connected only to the first and second antennas, respectively, wherein for a given incoming radio signal, the first and second receiving circuit paths are respectively selectable to provide respective different signal processing characteristics for the given incoming radio signal, and

wherein the first signal receiving circuit path when activated in a first receiving mode has different componential circuit structure for processing the received signal than the componential circuit structure of the second signal receiving circuit path when activated in a second receiving mode

Claim 49 (new): In a communications system according to claim 48, the first signal receiving circuit path comprising an amplifier for the received radio signal with a feedback loop for providing a signal receiving circuit path with different amplifier characteristics than the second signal receiving circuit path which lacks a corresponding amplifier.

Claim 50 (new): In a communications system as claimed in claim 49, said feedback loop includes a switch for selectively activating said feedback loop and for providing a first signal receiving circuit path when the feedback loop is activated having different amplifier characteristics than the second signal receiving circuit path which lacks a corresponding amplifier with a feedback loop including a switch for selectively activating said feedback loop.

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Claim 51 (new): In a communications system as claimed in claim 49, said feedback loop is a closed loop for providing a first signal receiving circuit path when the feedback loop is closed having different amplifier characteristics than the second signal receiving circuit path which lacks a corresponding amplifier with a closed feedback loop.

Claim 52 (new):: In a communication system as claimed in claim 48, a common intermediate frequency stage shared by the first and second signal receiving circuit paths; a selector system for selecting respectively the first and second signal receiving circuit paths, said first and second antennas supplying a given incoming radio signal to the first and second signal receiving paths, respectively, and a low noise amplifier in the first signal receiving circuit path between the first antenna and the selector system to provide a different signal processing characteristic for the given incoming radio signal in the first receiving circuit path than in the second signal receiving circuit path which lacks a corresponding low noise amplifier between the second antenna and the selector system.

Claim 53 (new): In a communication system as claimed in claim 52, a transmitter for coupling with the second antenna, the selector system in a transmit mode connecting the transmitter with the second antenna, and a low pass filter between the selector system and the second antenna for filtering the incoming radio signal from the second antenna in receiving mode when the second signal receiving circuit path is selected, while reducing the loss in transmit mode in comparison with the use of a bandpass filter.

Claim 54 (new): In a communication system as claimed in claim 48, the signal receiving circuit path from the first antenna to the intermediate frequency stage when activated in the first receiving mode provides an enhanced receiver sensitivity characteristic, and the signal receiving circuit path from the second antenna to the intermediate frequency stage when activated in the second receiving mode providing enhanced interference rejection of signals received by the second antenna.

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Claim 55 (new): In a communications system;
a first antenna and a second antenna

for selective operation in
receiving mode;

an intermediate frequency stage

for selective connection with the
first antenna in a first
receiving mode, to
activate a first signal
receiving circuit path, and for
selective connection to the
second antenna in a second
receiving mode, to activate a
second signal receiving circuit
path;

wherein the first signal receiving circuit path when activated includes an amplifier
component which is lacking in the second signal receiving circuit path when activated,
such that the first signal receiving circuit path when activated in the first receiving mode
has a different signal processing characteristic than the second signal receiving circuit
path when activated in the second receiving mode.

Claim 56 (new): In a communications system;
a first antenna and a second antenna

for selective operation in
receiving mode;

an intermediate frequency stage

for selective connection with the
first antenna in a first
receiving mode, to

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activate a first signal

receiving circuit path, and for
selective connection to the
second antenna in a second
receiving mode, to activate a
second signal receiving circuit path;

wherein the first signal receiving circuit path from the first antenna to the intermediate frequency stage when activated in the first receiving mode has a different signal processing characteristic than the second signal receiving circuit path from the second antenna to the intermediate frequency stage when activated in the second receiving mode;
and

wherein the signal receiving circuit path from the first antenna to the intermediate frequency stage when activated in the first receiving mode provides an enhanced receiver sensitivity characteristic, and the signal receiving circuit path from the second antenna to the intermediate frequency stage when activated in the second receiving mode providing enhanced interference rejection of signals received by the second antenna.

Claim 57 (new): In a communications system, diversity architecture receiving circuitry having first and second signal receiving circuit paths, wherein for a given incoming radio signal, the first and second receiving circuit paths are respectively individually selectable to provide respective different signal processing characteristics for the given incoming radio signal.

Claim 58 (new): In a communication system as claimed in claim 57, the second signal receiving circuit path comprising an antenna, and a transmitter for coupling with the antenna, the selector system in a transmit mode connecting the transmitter with the second antenna, and a low pass filter between the selector system and the second antenna for filtering the incoming radio signal from the second antenna in receiving mode when the second receiving circuit path is selected, while reducing the loss in transmit mode in comparison with the use of a bandpass filter.